

Notice of Allowability

Application No.

10/645,093

Examiner

Eric B. Kiss

Applicant(s)

COWAN, KENNETH W.

Art Unit

2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed February 21, 2007.
2. ☒ The allowed claim(s) is/are 1-18, 29-45, 56 and 57, renumbered as 1-37.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

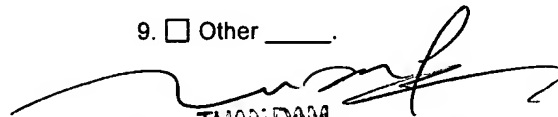
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 20070309.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


TUAN DAM
SUPERVISORY PATENT EXAMINER

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Anne E. Saturnelli (Reg. No. 41,290) on March 9, 2007.
3. The application has been amended as follows:

Please amend claims 1, 29, and 57 as follows.

Claim 1 (Currently Amended) A method executed in a computer system for automatically tracking hardware and software platform usage for a plurality of program executions on a plurality of hardware and software platforms comprising:

enabling collection of one or more records of hardware and software platform information prior to execution of each of said plurality of programs;

executing each of said plurality of programs;

recording, in a central data storage device in response to said enabling, one or more records of hardware and software platform information and one or more records of code coverage information for said plurality of program executions; and

assessing, in accordance with at least one predetermined criteria, code coverage associated with at least one of hardware and software platform usage using said one or more records of hardware and software platform information from said plurality of program executions.

Claim 29 (Currently Amended) A computer program product for automatically tracking hardware and software platform usage for a plurality of program executions on a plurality of, hardware and software platforms comprising:

machine executable code .for enabling collection of one or more records of hardware and software platform information prior to execution of each of said plurality of programs;

machine executable code for executing each of said plurality of programs;

machine executable code for recording, in a central data storage device in response to said machine executable code for enabling, one or more records of hardware and software platform information and one or more records of code coverage information for a said plurality of program executions; and

machine executable code for assessing, in accordance with at least one predetermined criteria, code coverage associated with at least one of hardware and software platform usage using said one or more records of hardware and software platform information from said plurality of program executions.

Claim 57 (Currently Amended) A method executed in a computer system for automatically tracking hardware and software platform usage for a plurality of program executions on a plurality of hardware and software platforms comprising:

enabling collection of one or more records of hardware and software platform information prior to execution of each of said plurality of programs;

executing each of said plurality of programs;

recording, in a central data storage device in response to said enabling, one or more records of hardware and software platform information and one or more records of code coverage information for said plurality of program executions; and

querying said central data storage device, in accordance with at least one predetermined criteria using said one or more records of hardware and software platform information from said plurality of program executions, to determine code coverage associated with at least one of hardware and software platform usage.

4. The following is an examiner's statement of reasons for allowance:

The prior art of record fails to expressly teach or fairly suggest the correlation of records of code coverage and records of platform configuration such that code coverage can be assessed on a platform-by-platform basis in accordance with a search (assessing in accordance with predetermined criteria) of the platform configuration records, as described in independent claims 1, 29, and 57.

The closest available prior art is U.S. Patent No. 5,742,754 (Tse), which describes a system for managing software testing on a plurality of platform configurations, including performing coverage testing on the platforms. However, Tse merely generates log files of the individual tests (formatted as reports) rather than correlating searchable records of coverage data according to the tested platform configurations such that code coverage can be searched/assessed by reference to hardware or software configuration criteria.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following documents describe the logging of hardware and software platform information during testing of software:

U.S. Patent No. 6,279,124 (Brouwer et al.)

U.S. Patent No. 6,418,543 (Goli et al.)

The following documents describe configuration testing:

IBM Technical Disclosure Bulletin, vol. 32, issue 6B, pp. 467-469 (1989) (4 printed pages);

Cem Kaner, et al., "Testing Computer Software," International Thomson Computer Press, 1993, pp. 143-167;

U.S. Patent No. 5,410,681 (Jessen et al.);

U.S. Patent No. 5,742,754 (Tse); and

U.S. Patent No. 6,014,760 (Silva et al.).

The following documents describe bug tracking including hardware and software platform information:

Albert Endres, "An Analysis of Errors and Their Causes in System Programs," Proceedings of the International Conference on Reliable Software, Los Angeles, California, 1975, ACM Press, pp. 327-336; and

U.S. Patent No. 6,266,788 (Othmer et al.).

The following documents describe coverage analysis:

U.S. Patent No. 5,742,754 (Tse); and

U.S. Patent No. 5,754,760 (Warfield).

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7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric B. Kiss whose telephone number is (571) 272-3699. The Examiner can normally be reached on Tue. - Fri., 7:00 am - 4:30 pm. The Examiner can also be reached on alternate Mondays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Tuan Dam, can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature should be directed to the TC 2100 Group receptionist: 571-272-2100.

EBK / EBK
March 9, 2007



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